

## REMARKS

Claims 1-33 are the originally pending claims in this application. Claims 1-33 have now been amended to more clearly and particularly define the invention, and claims 34 to 48 reciting methods for production of the claimed compounds have now been added. Basis exists in the originally filed specification for these amendments. The specification has also been amended as indicated to more clearly and particularly define the invention. No new matter has been added and basis exists in the as-filed specification for these amendments.

Claims 1-33 have been rejected under 35 U.S.C. § 102(a) or (e) as being anticipated by compound VII in Column 3 of Bourzat et al., U.S. Patent No. 5,608,102.

Claims 1-33 have also been rejected under § 102(a) or (e) as being anticipated by compound 3 in Holton et al., US. Patent No. 5,739,362 and are also rejected under 35 U.S.C. § 103 as being obvious over Holton et al.

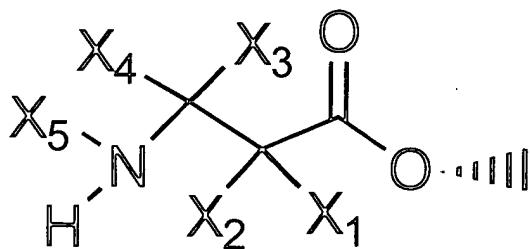
In particular, the Examiner maintains that in compound VII of Bourzat et al., the R<sub>3</sub> group recites a phenyl radical substituted by one or more halogen atoms and in which R<sub>3</sub> also represents the R<sub>4</sub>-O- radical which contains halogen-substituted radicals.

Our reading of Bourzat et al., however, shows compound VII to be a taxane derivative, and which merely lists different compounds of a phenyl radical optionally substituted by one or more atoms or radicals, identically or differently, chosen from halogen atoms and alkyl, hydroxyl, alkoxy, alkanoyl, alkanoyloxy, nitro, amino, alkylamino, etc. There appears to be no disclosure in this reference of how to make the compounds of Structure VII in Bourzat et al. United States patent law is well settled that in the case of a chemical compound claim, the mere listing of the chemical formula of the claimed compound in a prior art reference is insufficient to establish anticipation. Were it to be otherwise, the United States Patent and Trademark Office, or some other prior art reference, would have long ago generated and published a computer listing of all possible compounds. Thus, in order for a claim to a chemical compound to be anticipated, the reference must set forth how to make the chemical compound. See, for example, In Re Donohue (II), 766 F.2d 531, 226 USPQ 619 (Fed. Cr. 1985). Nothing in the Bourzat et al. reference teaches or discloses how to make any of applicants' claimed compounds. Thus,

this reference for purposes of § 102 cannot anticipate any of claims 1-48 of applicants' claimed invention.

Next, the Examiner maintains that Holton et al., teach a taxane wherein the C<sub>13</sub>-side chain contains alkoxy or aryloxy substituents, and directs attention to the X<sub>5</sub> group in compound 3 and lines 27-65 in column 4, and also maintains that the patented alkyl or phenyl groups can be substituted by halogen. Therefore, the Examiner maintains that the claimed compounds would be deemed obvious to the prior art Holton et al. Compounds, as substituting a halogen group to alkyl or phenyl group is allegedly within the capacity of any artisan.

A close examination of Holton et al., however, discloses compound 3 on Column 2 as having a C<sub>13</sub>-side chain as follows:



wherein X<sub>5</sub> is —COOX<sub>10</sub>, and in which X<sub>10</sub> is alkyl, alkenyl or aryl, and in which no other substituted positions on the C<sub>13</sub>-side chain contain halogen, either mono- or dihalosubstituted. Thus, it is clear that nothing at all is mentioned as to the specifically claimed instant compounds containing C<sub>13</sub>-side chain mono or dihalogenated acyl group, aroyl group (as set forth in Table 1 in the specification), alkyloxycarbonyl group or aryloxy carbonyl group (as set forth in Table 2 of the specification) or in which R<sub>3</sub> is a selectively halogenated group, which are all of the specifically claimed formulae of general formula A, such as set forth on Page 5 of the specification, under Summary of the Invention,

Additionally, in compound 3 of Holton et al., nothing is mentioned in the least with respect to applicants' specifically claimed compounds of general formula B on Page 5 of the specification under Summary of the Invention, as to C<sub>13</sub>-side chain derivatives of paclitaxel and cephalomannine containing selectively halogenated groups of mono or dihalogenated acyl group or aroyl group (again, as specifically set forth in

Table I of the specification) or of alkyloxy-carbonyl group or aryloxy-carbonyl group (as specifically set forth in Table 2 of the specification).

Synthesis and preparation of all of these claimed compounds is described, for example, on Page 15 of the specification, lines 1, et seq., in which halogenated cephalomannine, paclitaxel or other taxane analogs are prepared in good yield by selective halogenation of the described aliphatic or aromatic acids, further converted to acyl halogenides or halogenated aliphatic or aromatic unsaturated alcohols or phenols, converted with phosgene to the corresponding formates, while leaving portions or moieties of the molecule or other important taxane compounds in the mixture intact, undisturbed and unreacted, such as 10-deacetyl-baccatin III, baccatin III, cephalomannine, Taxotere® and paclitaxel, according to reaction schemes I-III described on Pages 17, et seq. of the instant specification.

In Holton et al., the Examiner points to column 4, lines 27-65 for teaching or suggestion of substitution by halogen alkyl or phenyl groups. However, none of specific structures claimed by applicant are described. For example, none of applicants' specifically recited mono-, di- or higher halogenated compounds are suggested or described. Holton et al., merely provides a generalized listing of compounds with no specific structures referred to, and certainly does not describe any of applicants' specifically claimed selectively halogenated compounds, or how to prepare the claimed compounds.

This is further evidenced by the fact that in not one of the one hundred and twenty-one (121) examples in Holton et al., on Columns 29 through 149, is there any taxane derivative exemplified or otherwise suggested, having a selectively halogenated C<sub>13</sub>-side chain or the preparation of any halogenated derivatives at all. This is not a case of a prior art compound disclosing an adjacent halogen in a corresponding compound, or a change in the number of halo groups in a prior art corresponding compound. This is the case of no prior art disclosure of applicants' specifically claimed selectively halogenated derivatives and of no disclosure of how to make the claimed compounds. Thus, under well settled principles of United States patent law it is impossible for Holton et al., to render obvious any of the claimed compounds for purposes of § 103, or to anticipate any of the claimed compounds for purposes of § 102. The standard of "obvious-to-try" to produce applicants' claimed compounds, as apparently what the Examiner is propounding, is not the correct standard for a determination of obviousness. Additionally,

respectfully, the Examiner is thought to be using applicants' claimed compounds and specification as impermissible hindsight teaching to prepare the claimed compounds, and to render the claimed compounds obvious. Applicants' specification is not a reference, and it is well settled that hindsight analysis is not to be used in determining what would have been obvious to a person of ordinary skill in the art at the time applicants' claimed invention was made. See, for example, Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1 U.S.P.Q.2d 1593 (Fed. Cir.), cert. denied, 107 S.Ct. 2187 (1987). As is clear from a reading of Holton et al., nothing in this reference teaches or suggests to make applicants' claimed compounds, or in any way how to make the claimed compounds, as is required for a determination of obviousness.

Thus, for all of the above-stated reasons, it is submitted that all of the instantly claimed compounds of Claims 1-48 are neither anticipated nor rendered obvious by the Bourzat et al., or Holton et al., references, and that said claims defined patentable subject matter. Removal of the §§102 and 103 rejections, and reconsideration for the allowability of pending claims 1-48 is respectfully requested.

Respectfully Submitted,



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